Province of British Columbia

PROPOSED STANDARDS FOR THE ADAPTIVE REUSE OF EXISTING BUILDINGS

Ministry of Municipal Affairs

Ministry of Lands, Parks & Housing

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INTRODUCTION

These standards represent an attempt to deal with the problems of change in use or alterations to existing buildings using a system which differs radically from the conventional approach.

The basic philosophy behind the development of these standards was to recognize that the Building Code does not lend itself to be applied, as is, to existing buildings undergoing changes. Conditions occur which make subjective judgements necessary to provide equivalent levels of health and safety by means of compensatory measures. Exercising subjective judgement has never been popular with building officials particularly because of their concern for incurring liability for decisions respecting building safety.

For changes in the use of a building, the present requirement is to bring the building up to the current Building Code which is in most cases a physical impossibility. For alterations, a cost related method has usually been employed, using the value of alterations in relation to the assessed value of the building. This percentage value was then used to decide the level of Code conformance which the building had to meet. In essence, the proposed standards for the reuse of buildings depart completely from these conventional procedures.

It was originally intended to adopt an approach based on the establishment of a complete list of pre-assigned hazard factors for each use listed in the Building Code. The factors were separated into five categories, each representing a different type of hazard. It was felt that to assign a single rating to a single use would be restrictive and not sufficiently flexible.

It was also intended to apply these values to "use" changes on a very simple basis. Where a building was changing use, the hazard ratings for each use would be available. If, in any category the new use was assessed at a higher hazard level, this would identify where building improvements were required. Where strict conformance with Code requirements could be difficult or impossible to achieve, acceptable compensatory measures were to be indicated.

However, during the research work, a new development occurred. A U.S. agency put together a method of assessing the fire safety levels for different types of health care occupancies.

After examining this method it was concluded that a similar process could complement the hazard index system and be adapted for upgrading all types of buildings. If the concept proves to be satisfactory, the work of a building official will be considerably simplified. In addition, by using pre-assigned values for municipal officials, a high degree of uniformity across the Province could be achieved, reducing the need for individual subjective judgements.

There are some aspects which the tables do not cover. These include the need for a detailed preliminary on site investigation (for which the Building Standards Branch will provide a recommended check list), an engineering analysis where Part 4, including seismic, provisions are involved, and compliance with other provincial regulations such as electrical, gas and boiler requirements.

Guidelines for Applying the Standards

To assist in understanding the concept for applying the recommended standards for the reuse of buildings, the following points are offered:

1. For a change in use: After the investigation of a building, to establish that the fabric is such that adaption is feasible, the hazard ratings for existing and proposed uses would be compared using Table 1.

2. If, under columns 4 and 8, the hazard ratings increased, the building would be upgraded to Code requirements in these two categories. If the index was the same or less, no action would be required. Note that one of the categories is "structural safety," a factor which cannot be "traded off;" i.e. either the building will stay standing or it will collapse.

3. If under columns 5 to 7 containing categories dealing with fire containment, fire detection and control, and means of egress the hazard ratings increased, each floor of the building would be processed through Table 2 and the results summarized in Table 3. If the total in any category in Table 3 resulted in a 0 or positive figure for a floor, that category would be considered acceptable. If the total was negative, it would then be necessary to go back to Table 2 to see where increases in value could be achieved by the indicated methods. This process in itself provides for some alternatives which if inadequate may be supplemented either by expanding the tables or listing separate acceptable options. Some potential trouble points are also covered in Section 4.

4. For a building being upgraded or altered in the same use category: After preliminary investigation, Tables 2 and 3 would be applied as above. Categories deficient in any respect would then require upgrading.

5. It was considered that adapting a building for reuse would, in most cases, involve considerable rearrangement of internal layouts. This would inevitably affect items such as travel distances which would be required to conform with the Code for new buildings. The parameters in Table 2 were therefore limited to avoid such complications but, if necessary these will be expanded in the final document which will form part of the B.C. Building Code.

PREFACE

To complement the "Residential Conversion Guidelines," which became part of the Provincial Building Code in December 1981, this document covers all buildings other than single detached dwellings.

The title - "Standards for the Adaptive Reuse of Existing Buildings" - has been used to reflect its purpose, namely providing for upgrading, repair, alteration, addition, and change in building use.

In preparing the standards, it was the intention to remove, as far as possible, the necessity for subjective judgements by building officials. By allocating set values to cope with each envisaged condition, it is hoped that province-wide uniformity of application can be achieved.

Three tables have been prepared to form the framework for the process. Table 1, entitled "Use Hazard Rating," lists the complete range of uses included in the Building Code. While the Code groups individual uses into broad occupancy ratings, Table 1 deals with individual uses within each occupancy group to allow for the variables associated with each use. The primary purpose of this table is to deal with a change in use of a building.

For purposes of flexibility, rather than attempt to assign a single hazard index number to each use, five different hazard rating categories have been established. These cover: structural safety; fire containment; a fire detection and control, and means of egress. Structural safety does not include Part 4 requirements of the Building Code. Each rating has been assigned a value ranging from 1 to 10 according to the assessed degree of hazard.

In the category of fire containment, there was divergence of opinion and hence for the purpose of this initial document only, two sets of ratings have been included. This dual listing will not be repeated in the final document.

Table 2 is entitled "Safety Evaluation." This table assigns a positive or negative value for thirteen different parameters which vary according to construction type and existing conditions. An evaluation of a building in respect of these safety factors would result in a chart of assessed values.

Table 3 is entitled "Individual Safety Evaluation." This collects the values from Table 2 and summarizes them into three hazard categories.

Tables 2 and 3 were originally intended to be used in relation to the upgrading of buildings, but are also used for changes in building use. Assuming that a building, in respect of a certain category, is unable to comply with the Building Code or be provided with acceptable compliance alternatives, Tables 2 and 3 provide a mechanism for dealing with the deficiencies.

It is hoped that these standards will provide a viable framework for dealing with existing buildings. They are planned to provide acceptable safety standards for the adaption and reuse of existing buildings for any purpose.

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SECTION 1 - ADMINISTRATION

1.1 General:

These standards are intended for application to existing buildings outside the scope of "Residential Conversion Guidelines - 1981." They deal with all measures necessary for the adaptive reuse of such buildings, including upgrading, repair, alteration, addition, and change in use, without requiring precise conformance with the Building Code as required for new construction.

Nothing in these standards shall be taken to permit violation of a municipal or regional district zoning bylaw.

Except with the approval of the authority having jurisdiction, nothing in these standards shall be taken as accepting work already undertaken without a legal permit.

1.2 Preliminaries:

For any work to be carried out under the provisions of these standards, the owner shall submit to the authority having jurisdiction full details of his proposals. These shall include the results of detailed building investigation and evaluation, compliance alternatives and completed tables as applicable.

No application will be accepted for a building which is subject to an outstanding notice of violation, unless the application indicates specific proposals to correct such violation which must be acceptable to the authority having jurisdiction.

1.3 Structural Requirements:

For buildings subject to the provisions of Part 4 of the Building Code, each application shall be accompanied by a structural analysis carried out by a Professional Engineer licensed to practise structural engineering in British Columbia.

The analysis shall cover all aspects of the building with respect to structural adequacy, remedial measures to correct unsafe conditions, and recommendations to provide an acceptable level of structural safety for the proposed use. The analysis and recommendations shall bear the stamp of the Engineer.

1.4 Handicapped Requirements:

Unless otherwise indicated in these standards, Part 10 of the Building Code shall apply only to the extent contained within that Part, for existing buildings.

SECTION 2 - SCOPE

2.1 Compliance:

Where conformance with the Building Code is required, some measures are indicated as acceptable compliance alternatives. It is not intended that alternatives be limited to these, but they represent examples of situations which can be envisaged. The tables forming part of these standards may also be used to further identify alternatives to meet acceptable safety levels.

2.2 Application:

These standards are based on the principle of a hazard assessment level for each use in five separate hazard rating categories. The ratings are expressed in terms of a scale of 1 - 10, with 1 being the lowest and 10 the highest rating. Uses are grouped under the occupancy classifications of Subsection 3.1.2. in the Building Code, but hazard ratings differ between individual uses within a group.

Categories of hazard ratings are:

- Structural safety
- Fire containment
- Fire detection and control
- Means of egress
- Use hazards

These rating categories include the following types of requirements:

Structural Safety - Loadbearing capabilities of walls, floors and roof. General structural integrity excluding requirements covered in Part 4 of the Building Code.

Fire Containment - Firewalls and Fire separations
Spatial separation
Interior finish
Construction materials

Fire Detection & Control - Fire and smoke alarms
Detectors
Firefighting systems
Smoke control

Means of Egress - Capacity, distribution and location of exits
Travel distance
Exit and emergency lighting
Fixed seating arrangements

Use Hazards - Hazardous processes
Cooking equipment
Materials of a highly flammable or explosive nature
Environmental conditions
Storage
Health hazards

SECTION 3 - DEFINITIONS

3.1 General:

Words underlined are defined in these standards. All other words and phrases shall have the meanings defined in the Building Code.

3.2 Definitions:

Building Code: the 1980 B.C. Building Code as adopted and amended by the Government of British Columbia.

Electrical Code: the current version of the B.C. Electrical Code.

Existing building: a building or portion of a building which has been legally occupied for a period of at least five years.

Gas Code: the current version of the B.C. Gas Code.

Part 10: Part 10 of the British Columbia Building Code - Building Requirements for the Physically Handicapped.

Plumbing Code: the 1980 B.C. Plumbing Code as adopted and amended by the Government of British Columbia and forming part of the Building Code.

Residential Conversion Guidelines: British Columbia Residential Conversion Guidelines 1981 forming part of the British Columbia Building Code.

SECTION 4 - IMPLEMENTATION

4.1 General:

4.1.1. All components of a building shall be satisfactory for the intended use or be restored to that condition.

4.1.2. All new materials, equipment and installations required for repairs, alterations and additions shall comply with the Building Code, except where specifically provided otherwise in these standards.

4.1.3. No alteration or addition to a building shall impose stresses on the existing portion sufficient to make these exceed the requirements of the Buiding Code.

4.1.4. No alteration or addition to a building shall increase the level of hazard to the occupants of the existing portion beyond the hazard level existing prior to the alteration or addition.

4.1.5. Unprotected openings within a 4 foot limiting distance will be permitted in external walls only if acceptable exterior sprinkler protection or acceptable automatic fire shutters are provided.

4.1.6. Notwithstanding the provisions of Sentence 3.1.7.2.(2) and Article 9.10.9.26. of the Building Code, combustible drain, waste and vent piping will be permitted in a building where part of the system passes through a vertical or horizontal fire separation, provided that a protective device is used at the location of penetration which has been tested, as required in the Building Code, to at least the rating necessary for the separation.

4.1.7. Notwithstanding the provisions of Part 4 of the Building Code, the authority having jurisdiction may accept the recommendations of the Professional Engineer indicated in Article 1.3. of these standards.

4.1.8. New electrical, gas and plumbing systems shall conform fully with the Electrical Code, Gas Code and Plumbing Code.

TABLE 1

USE HAZARD RATING INDEX							
			HAZARD RATING				
GROUP	DIV.	USE	STRUCTURAL SAFETY	FIRE CONTAINMENT	FIRE DETECTION & CONTROL	MEANS OF EGRESS	USE HAZARDS
A	1	Motion picture theatres	6	6 (5)	6	8	6
		Opera houses	8	6 (5)	6	8	8
		Television studios admitting a viewing audience	8	6 (5)	6	8	8
		Theatres, including experimental theatres	8	6 (5)	6	8	8
A	2	Art galleries	5	5 (5)	6	6	6
		Auditoria	7	6 (7)	5	7	5
		Bowling Alleys	4	4 (5)	3	5	3
		Churches and similar places of worship	4	4 (4)	3	6	3
		Clubs, nonresidential	5	5 (4)	3	6	4
		Community halls	6	6 (7)	5	7	5
		Court rooms	5	4 (4)	3	6	3
		Dance halls	8	7 (8)	5	9	7
		Day-Care Centres	4	5 (5)	3	6	4
		Exhibition halls (other than classified in Group E)	7	6 (7)	6	8	7
		Gymnasia	6	4 (4)	2	7	4
		Lecture halls	5	4 (4)	3	6	4
		Libraries	9	6 (7)	6	5	7
Col.1	2	3	4	5	6	7	8

TABLE 1 (CONTINUED)

USE HAZARD RATING INDEX							
			HAZARD RATING				
GROUP	DIV.	USE	STRUCTURAL SAFETY	FIRE CONTAINMENT	FIRE DETECTION & CONTROL	MEANS OF EGRESS	USE HAZARDS
A	2	Licensed beverage establishments	6	7 (7)	6	9	7
		Lodge rooms	5	4 (4)	3	6	5
		Museums	6	5 (5)	6	6	6
		Passenger stations & depots	7	4 (4)	3	6	3
		Recreation piers	7	6 (6)	6	6	3
		Restaurants	4	6 (5)	5	7	6
		Schools & colleges nonresidential	5	5 (7)	6	6	5
		Undertaking premises	2	3 (3)	1	5	2
A	3	Arenas	5	3 (4)	3	7	3
		Rinks	4	3 (4)	3	5	3
		Indoor swimming pools with or without spectator seating	3	3 (3)	2	4	3
A	4	Amusement park structures (not elsewhere classified)	2	2 (3)	3	6	3
		Bleachers	1	1 (3)	1	4	1
		Grandstands	3	2 (4)	1	4	2
		Reviewing stands	1	1 (3)	1	4	1
		Stadia	2	2 (3)	1	4	2
Col.1	2	3	4	5	6	7	8

TABLE 1 (CONTINUED)

USE HAZARD RATING INDEX							
			HAZARD RATING				
GROUP	DIV.	USE	STRUCTURAL SAFETY	FIRE CONTAINMENT	FIRE DETECTION & CONTROL	MEANS OF EGRESS	USE HAZARDS
B	1	Jails	10	10 (10)	10	1	2
		Penitentiaries	10	10 (10)	10	1	2
		Police stations with detention quarters	8	9 (10)	10	2	4
		Prisons	10	10 (10)	10	1	2
		Psychiatric hospitals with detention quarters	8	9 (10)	10	3	4
		Reformatories with detention quarters	8	9 (10)	10	3	4
B	2	Children's custodial homes	4	8 (8)	7	8	3
		Convalescent homes	6	8 (8)	8	10	4
		Homes for the aged	6	8 (8)	8	9	4
		Hospitals	8	9 (10)	10	9	4
		Infirmaries	6	8 (8)	8	10	4
		Orphanages	4	7 (8)	8	7	3
		Psychiatric hospitals without detention quarters	8	8 (8)	8	9	4
		Reformatories without detention quarters	8	8 (8)	8	7	3
		Sanitoria without detention quarters	8	8 (8)	8	9	4
Col.1	2	3	4	5	6	7	8

TABLE 1 (CONTINUED)

USE HAZARD RATING INDEX							
			HAZARD RATING				
GROUP	DIV.	USE	STRUCTURAL SAFETY	FIRE CONTAINMENT	FIRE DETECTION & CONTROL	MEANS OF EGRESS	USE HAZARDS
C	-	Apartments	4	6 (8)	8	4	4
		Boarding houses	3	3 (3)	5	4	3
		Clubs, residential	4	7 (8)	9	5	4
		Colleges, residential	4	7 (8)	9	4	4
		Convents	4	6 (7)	7	4	3
		Dormitories	4	7 (8)	6	4	3
		Hotels	5	8 (8)	9	5	5
		Houses	2	2 (2)	2	2	2
		Lodging houses	3	3 (3)	6	4	3
		Monasteries	3	6 (7)	7	4	2
		Motels	4	8 (8)	8	5	5
		Schools, residential	4	7 (8)	9	4	4
D	-	Banks	6	2 (2)	1	2	3
		Barber & hairdressing shops	3	3 (2)	1	3	4
		Beauty parlours	3	3 (2)	1	3	4
		Dental offices	3	2 (2)	1	3	2
		Dry cleaning establishments, self-service not employing flammable or explosive solvents or cleaners	3	3 (2)	1	3	3
		Laundries, self-service	3	3 (2)	1	3	2
Col.1	2	3	4	5	6	7	8

TABLE 1 (CONTINUED)

USE HAZARD RATING INDEX							
			HAZARD RATING				
GROUP	DIV.	USE	STRUCTURAL SAFETY	FIRE CONTAINMENT	FIRE DETECTION & CONTROL	MEANS OF EGRESS	USE HAZARDS
D	-	Medical offices	4	2 (2)	1	3	2
		Offices	5	4 (4)	5	4	3
		Police stations without detention quarters	6	4 (4)	5	3	5
		Radio stations	5	4 (4)	3	3	5
		Small tool & appliance rental & service establishments	5	5 (5)	1	3	5
E	-	Department stores	7	6 (8)	8	7	6
		Exhibition halls	7	8 (9)	9	8	7
		Markets	6	4 (3)	3	6	5
		Shops	3	2 (2)	2	4	4
		Stores	4	2 (3)	3	5	5
		Supermarkets	6	4 (3)	3	6	5
F	1	Bulk plants for flammable liquids	8	10 (10)	10	7	10
		Bulk storage warehouses for hazardous substances	8	10 (10)	10	7	10
		Cereal mills	7	10 (10)	10	7	9
		Chemical manufacturing or processing plants	7	10 (10)	10	7	9
		Distilleries	8	10 (10)	10	7	9
		Dry cleaning plants	7	10 (10)	10	7	9
Col.1	2	3	4	5	6	7	8

TABLE 1 (CONTINUED)

USE HAZARD RATING INDEX							
			HAZARD RATING				
GROUP	DIV.	USE	STRUCTURAL SAFETY	FIRE CONTAINMENT	FIRE DETECTION & CONTROL	MEANS OF EGRESS	USE HAZARDS
F	1	Feed mills	8	10 (10)	10	7	9
		Flour mills	8	10 (10)	10	7	9
		Grain elevators	10	10 (10)	10		
		Lacquer factories	8	10 (10)	10	7	10
		Mattress factories	7	10 (10)	10	7	8
		Paint, varnish & pyroxylin product factories	8	10 (10)	10	7	9
		Rubber processing plants	8	10 (10)	10	7	9
		Spray painting operations	7	10 (10)	10	7	9
		Waste paper processing plants	8	10 (10)	10	7	8
F	2	Aircraft hangars	8	7 (8)	7	5	7
		Box factories	6	7 (8)	8	5	6
		Candy plants	6	7 (8)	7	5	6
		Cold storage plants	9	7 (8)	8	3	5
		Dry cleaning establishments not using flammable or explosive solvents or cleaners	5	6 (8)	7	5	6
		Electrical substations	6	7 (8)	5	3	5
		Factories	6	7 (8)	8	5	6
		Freight depots	7	5 (8)	8	5	7
Col.1	2	3	4	5	6	7	8

TABLE 1 (CONTINUED)

USE HAZARD RATING INDEX							
			HAZARD RATING				
GROUP	DIV.	USE	STRUCTURAL SAFETY	FIRE CONTAINMENT	FIRE DETECTION & CONTROL	MEANS OF EGRESS	USE HAZARDS
F	2	Helicopter landing areas on roofs	10	6 (6)	1	5	10
		Laboratories	5	7 (8)	7	5	5
		Laundries except self-service	4	6 (8)	6	4	3
		Mattress factories	5	7 (8)	7	5	6
		Planing mills	6	8 (8)	8	5	7
		Printing plants	5	8 (8)	5	5	7
		Repair garages	6	6 (8)	7	5	8
		Salesrooms	5	7 (8)	7	5	6
		Service stations	3	8 (8)	2	3	7
		Storage rooms	5	6 (8)	7	3	6
		Television studios not admitting a viewing audience	7	7 (8)	6	5	6
		Warehouses	6	6 (8)	9	3	6
		Wholesale rooms	5	6 (8)	7	5	6
		Woodworking factories	6	7 (8)	9	5	7
		Workshops	6	7 (8)	7	5	7
F	3	Creameries	6	4 (6)	5	3	3
		Factories	6	5 (6)	6	3	4
		Laboratories	5	5 (6)	5	3	5
		Power plants	5	5 (6)	6	3	4
		Salesrooms	5	5 (6)	6	3	4
Col.1	2	3	4	5	6	7	8

TABLE 1 (CONTINUED)

USE HAZARD RATING INDEX							
			HAZARD RATING				
GROUP	DIV.	USE	STRUCTURAL SAFETY	FIRE CONTAINMENT	FIRE DETECTION & CONTROL	MEANS OF EGRESS	USE HAZARDS
F	3	Sample display room	5	5 (6)	5	5	4
		Storage garages	7	4 (6)	5	3	4
		Open air parking garages	7	4 (0)	2	3	1
		Storage rooms	5	4 (6)	6	3	4
		Warehouses	5	4 (6)	6	3	4
		Workshops	6	5 (6)	6	5	5
Col.1	2	3	4	5	6	7	8

SAFETY EVALUATION CHART

TABLE 2

CONSTRUCTION TYPE	COMBUSTIBLE			MIXED COMBUSTIBLE & NON-COMBUSTIBLE														NON-COMBUSTIBLE									
1. FLOOR CONSTRUCTION	A	B	C	D	E	F	G	H	I	J	K	A	B	C	L	M	N	D	E	F	G	H	I	J	K	L	N
1st FLOOR	0	0	2	3	-1	1	2	0	4	3	0	0	0	2	0	-1	1	3	-1	1	2	0	4	3	0	0	1
2nd FLOOR	-2	-2	0	2	-7	1	2	-1	4	3	-2	-2	-7	-2	-1	-2	0	3	-2	1	2	0	4	3	-1	-1	1
3rd FLOOR	-9	-7	-1	-1	-9	0	1	-2	4	3	-7	-9	-13	-7	-2	-7	-1	3	-7	0	2	-1	4	3	-2	-2	0
4th + FLOOR	-13	-13	-9	-2	-13	-1	0	-9	4	2	-9	-13	-13	-9	-7	-9	-2	2	-9	-1	1	-7	4	2	-9	-7	-2
2. INTERIOR FINISH (Corridor & Exit)	>150: -5			>25 ≤ 150: 0						≤ 25: 3																	
3. INTERIOR FINISH (Rooms)	>150: -4			>25 ≤ 150: 1						≤ 25: 3																	
4. CORRIDOR PARTITIONS/WALLS	NONE OR INCOMPLETE: -10			<45 min.: 0						≥ 45 min. <1 hr.: 1					≥ 1 hr.: 2												
5. DOORS TO CORRIDOR	None: -10			<20 min.: 0						≥ 20 min.: 1					≥ 20 min. & closers: 2												
6. ZONE DIMENSIONS	DEAD END: ≥ 15 m: -15; > 9 m: -10; ≤9 >6 m: -6; ≤ 6 m: 0									NO DEAD END >6 m & ZONE LENGTH IS: ≥ 25 m: -15; <25 >10: -5; ≤ 10 m: 0															
7. VERTICAL OPENINGS THROUGH FLOORS	4 OR MORE FLOORS: -14			2 OR 3 FLOORS: -10						ENCLOSED WITH FIRE RESISTANCE RATING: <1 hr.: 0; ≥ 1 2: 2; >2 hr.: 3															
8. HAZARDOUS AREAS	TWO: IN ZONE: -15; OUTSIDE ZONE: -7									ONE: IN ZONE: -9; IN ADJACENT ZONE: -3								NONE: 0									
9. SMOKE CONTROL	NONE: -5			SMOKE PARTITIONS: 0						MECHANICALLY ASSISTED: 3																	
10. EMERGENCY EXIT ROUTES	<2: -8			MULTIPLE ROUTES: DEFICIENT: -2; W/O HORIZONTAL EXITS: 0; HORIZONTAL EXITS: 3; DIRECT EXIT: 5																								
11. MANUAL FIRE ALARM	NONE: -4			WITHOUT FIRE DEPT. CONNECTION: 1						WITH FIRE DEPT. CONNECTION: 2																	
12. SMOKE DETECTION AND ALARM	NONE: -2			CORRIDORS ONLY: 1						ROOMS ONLY: 2					CORRIDORS AND HABITABLE SPACES: 3			TOTAL BUILDING: 5									
13. AUTOMATIC SPRINKLERS	NONE: 0			CORRIDORS AND HABITABLE SPACES: 8						TOTAL BUILDING: 10																	

TABLE 2 (Continued)

FLOOR CONSTRUCTION TYPES

A	Combustible	3/4 hr.	Fire separation
B	Combustible	3/4 hr.	Fire resistance rating
C	Combustible	1 hr.	Fire separation
D	Noncombustible	2 hr.	Fire separation
E	Noncombustible	Non-rated	Fire separation
F	Noncombustible	1 hr.	Fire resistance rating
G	Noncombustible	1 hr.	Fire separation
H	Noncombustible	3/4 hr.	Fire separation
I	Noncombustible	3 hr.	Fire separation
J	Noncombustible	2 hr.	Fire resistance rating
K	Noncombustible	3/4 hr.	Fire resistance rating
L	Noncombustible mezzanine	1 hr.	Fire resistance rating
M	Combustible mezzanine	3/4 hr.	Fire resistance rating
N	Noncombustible mezzanine	1 1/2 hr.	Fire resistance rating

Notes: < less than ≤ equal to or less than
> greater than ≥ equal to or greater than

TABLE 3

INDIVIDUAL SAFETY EVALUATIONS			
SAFETY PARAMETERS	FIRE CONTAINMENT	FIRE DETECTION AND CONTROL	MEANS OF EGRESS
FLOOR CONSTRUCTION			
INTERIOR FINISH (Corridor & Exit)			
INTERIOR FINISH (Rooms)			
CORRIDOR PARTITIONS/WALLS			
DOORS TO CORRIDOR			
ZONE DIMENSIONS			
VERTICAL OPENING			
HAZARDOUS AREAS			
SMOKE CONTROL			
EMERGENCY MOVEMENT ROUTES			
MANUAL FIRE ALARM			
SMOKE DETECTION AND ALARM			
AUTOMATIC SPRINKLERS			
TOTAL VALUE			
Column 1	2	3	4

Appendix A

Fire Resistance Ratings for
Archaic Construction

To follow

Appendix B

Surface Flame Spread Ratings

To follow

Appendix C

Recommended Checklist for
Inspection of Existing Buildings

To follow